

ADDITIONAL NRC STAFF QUESTIONS AND COMMENTS

PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3

TAC NOS. ME2337, ME2338, AND ME2339

By letter dated September 28, 2009, Arizona Public Service Company (APS) submitted a license amendment request (LAR) for the Palo Verde Nuclear Generating Station (PVNGS), Units 1, 2, and 3. The proposed amendment would revise Required Action A.1 of Technical Specification 3.8.7, "Inverters – Operating," for PVNGS by extending the Completion Time for restoration of an inoperable vital alternating current inverter from 24 hours to 7 days. The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the LAR and issued a draft Request for Additional Information (RAI), communicated to you via e-mail on April 13, 2010 (as corrected April 20, 2010). APS responded to the RAI by letter dated June 24, 2010. The staff has reviewed that response and needs further clarification on a couple of issues to complete its evaluation. The additional clarifying questions and comments based on the June 24, 2010, APS response are provided below.

PRA RAI 3c (spurious component operations in the fire PRA model)

The response to this question states that potential spurious operation of components was analyzed, but does not provide any further details as to the scope of this review, criteria applied, results, etc. (It was instead stated that spurious operations are not significant to plants with hot standby end states - the staff does not agree). The staff needs to understand more specifically how this aspect of the PVNGS fire PRA modeling was addressed. The licensee needs to provide additional information on how it identified and evaluated spurious operations for its PRA analyses supporting this application, and what spurious operations have been included in the fire PRA model.

PRA RAI 14 (tier 2 requirements in the TS Bases)

In the license amendment request section 3.4.5 for evaluation of tier 2 requirements, it is stated that "there is reasonable assurance that risk-significant plant equipment configurations will not occur...This conclusion is based on implementation of specific compensatory measures...". The staff interprets these statements to mean that if these compensatory measures on equipment availability are not implemented, then a risk-significant configuration could occur.

The response to question 14 includes the statement: "*the Technical Specification Bases statements describe prudent administrative controls, which do not restrict application of Technical Specification 3.8.7, Action A.1.*" If the statements in the TS Bases have no impact on the application of the proposed extended CT, then it is unclear to the staff how the tier 2 restrictions, identified by the licensee as required to reach the conclusion that "there is reasonable assurance that risk-significant plant equipment configurations will not occur...", achieve their intended purpose.

It is also not clear to the staff why planned outages of diesel generators and instrumentation channels must be prohibited in order to avoid a risk-significant configuration, but unplanned outages need not be prohibited.

The licensee needs to clarify whether a risk-significant configuration can occur due to simultaneous unavailability of an inverter with either a diesel generator or instrumentation

channel, and if so, to propose a tier 2 control which does assure the TS action is not applied under those conditions for either planned or unplanned unavailabilities. Further, if the control is not to be a note in the TS required action (this is the staff's preferred implementation method), then the licensee will need to justify why the restriction should not be in the TS action, include a specific regulatory commitment on the docket, and identify how the restrictions on equipment operability are implemented. For a permanent TS change, if it is essential to restrict unavailability of other TS components, then including such requirements in the TS Bases is not considered acceptable.